Hoppy to be here – IPM Research and Extension in New York Hops Production

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Executive Summary:

The remerging and geographically diverse hops industry in New York is being driven by a popularity of microbrews, home brewing and the buy local food movement. The production of hops in New York is currently, and will continue to be, typically a small operation (0.5 – 10 acres). However, with an estimated gross income between $10,000 between $30,000 an acre, potential losses to pests has many growers searching for the best IPM and/or organic management strategies. Much of the IPM materials that have been developed are suitable for the production strategies and weather conditions of the Pacific Northwest, which vary widely from those, found in the growing regions of New York.

Due to the relatively recent reemergence of the hops industry in the Northeast there are currently no publications that offer the potential, beginning or established hops grower the research-based information that they need to make the best pest management decision for their operation.

Issue Needs/Audience:

Many new hops growers do not have an agricultural background and do not have a solid understanding of pests, pest management practices and pesticides which can lead to ineffective pest management applications that use pesticides not appropriate for the pest, are poorly timed, misapplied due to application techniques and/or not applied at all due to a lack of understanding of the pest/plant interaction. The current makeup of the hops industry in the Northeast is of small farms spread over a large geographic area with very limited resources devoted to the delivery of hops IPM information. With the expansion of this industry being driven by those with little or no agricultural experience it is of utmost importance to provide the research-based information appropriate for the user that is required to make informed pest management decisions to minimize the negative impacts on the applicator, the hopyard and the surrounding environment.

Extension Responses:

A research/demonstration hop yard was planted in 2011 at the Cornell Lake Erie Research and Extension Laboratory (CLEREL) in Portland, NY to provide the resources needed to conduct applied IPM research projects and serve as a hand-on demonstration hopyard. The hopyard consists of both short (9 foot) and tall (18 foot) trellis heights with each containing a row of variety trials (10 different varieties) with four 18 foot rows (one variety per row) used as the production portion of the hopyard where applied research can be conducted. Weed management has been rated as one of the biggest pest management challenges by New York growers. To

address this issue, a project looking at 4 methods of weed control; 1) straw mulch, 2) rotary hoe, 3) black plastic mulch and 4) pre and post emergence herbicide, was started in 2013. In conjunction with the Chautauqua County Visitors Bureau, the Lake Erie Regional Grape Program and Steve Miller, Hops Specialist with Madison County CCE, the NYS IPM Program held the first annual Hops Production in the Lake Erie Region Conference at CLEREL on June 15, 2013. The conference was attended by 130 participants from across the Northeast who were either currently growing hops, or were looking to get into the business. Speakers from New York, Pennsylvania and Maryland provided talks on all aspects of hops production in the morning and in the afternoon the hopyard at CLEREL served as the hands-on classroom for participants.

The ability to quickly harvest a crop is another concern often voiced by those just getting into hops production. Once a hops plant, or hill, reaches maturity (often in its third year) it takes approximately 45 minutes to hand pick. A prototype small plot research harvester was designed, built and utilized during the 2013 harvest season.

Accomplishments and Impacts:

Information on the development and implementation a Hops Integrated Pest Management strategy was presented to 375 participants at 3 meetings held across New York State as well as 90 at the first annual Maryland Hops Conference. Working in cooperation with Wayne Wilcox (Plant Path), Greg Loeb (Entomology), Andrew Landers (Application Technology) and Steve Miller a Cornell Pest Management Guidelines for Hops is being developed for release in 2014. During the 2013 harvest season, the use of the prototype harvester allowed for a quick response to a request from Dan Minner, Head Brewer at Ellicottville Brewing Company, Ellicottville, NY for 60 pounds of locally produced wet hops for his harvest ale, Hopicity. The quick turnaround time would have been difficult, if not impossible to accomplish with hand picking.